

REMARKS

Claims 36-51 are currently pending in this application. Claims 1-35 were cancelled and claims 36-51 were added by Preliminary Amendment. The Examiner has withdrawn claims 47-51 from consideration in view of an earlier Restriction Requirement. Therefore, claims 36-46 remain pending in this application. This Amendment amends claims 36-38, 41 and 42 and adds new claims 52 and 53. Support for the amendments to the claims and the new claims can be found in the specification and claims as originally filed. No new matter has been added.

The Examiner has rejected claims 36-46 under 35 U.S.C. § 112, second paragraph, for indefiniteness. The Examiner asserts that the terms “an amount” in claim 1 and “such that” in claims 37 and 38 render the claims indefinite. In response, the terms “an amount” in claim 1 and “such that” in claims 37 and 38 have been deleted. Next, the Examiner asserts that the terms “incorporating” or “incorporated” in claims 36-38 do not define how the starch is incorporated into the latex. In response, claim 1 has been amended to include the amendatory language “incorporating starch into the liquid rubber latex before forming the article.” Support for the amendatory language can be found, for example, on page 8, lines 14-16 and page 14, lines 19-25 of the present specification. The Examiner also asserts that claim 41 contains improper Markush language. In response, claim 41 has been amended to include the proper Markush language. In view of the above, withdrawal of the rejection of claims 36-46 is respectfully requested.

The present invention, as claimed in amended independent claim 36, is directed to a method for reducing the allergen activity of rubber latex for use in a rubber latex article. The method comprises incorporating starch into the liquid rubber latex before forming the article. As discussed in detail below, none of the cited prior art references teaches or suggests incorporating the starch into the liquid rubber latex before forming the article.

The Examiner has rejected claims 42-46 under 35 U.S.C. § 102(b) for anticipation by U. S. Patent No. 5,691,446 to Dove (hereinafter “the Dove patent”) for the reasons discussed in Item I, pages 3 and 4 of the Office Action. The Examiner asserts that the Dove patent discloses a reduced allergenicity natural rubber latex article. Further, the Examiner asserts that claims 42-46 are process claims and, therefore, has not given any patentable weight to how the rubber latex articles are prepared. In response, claim 42 has

been rewritten in independent form and includes the amendatory language of "a rubber latex article comprising rubber latex having a reduced allergen activity, comprising an amount of starch, wherein said amount is maximally 10 wt.%" Support for the amendatory language to claim 42 can be found, for example, on page, 7 lines 19-21 of the present specification. The Dove patent does not teach or suggest a latex article having starch as claimed in amended independent claim 42. Because claims 43-46 depend either directly or indirectly from claim 42, reconsideration and withdrawal of the rejection of claims 42-46 are respectfully requested.

The Examiner has rejected claims 36-41 under 35 U.S.C. § 103(a) for obviousness over U.S. Patent No. 4,143,109 to Stockum (hereinafter "the Stockum patent") in view of U. S. Patent No. 5,383,608 to Fitt et al. (hereinafter "the Fitt patent") for the reasons discussed on pages 5 and 6 of the Office Action. The Examiner asserts that the Stockum patent teaches a method for producing rubber latex in combination with starch. Further, the Examiner asserts that the Stockum patent discloses a method, wherein a part of the fluid latex is mixed with cross-linked corn starch and used to cover a preformed latex glove. The Examiner states that the Stockum patent does not provide an explicit example of a modified starch with reduced allergenic activity. Therefore, the Examiner has combined the Fitt patent with the Stockum patent for the asserted teaching of a method for producing modified starch with reduced allergenic activity. In view of the above, the Examiner concludes that one skilled in the art would have a reasonable expectation for success in combining the Stockum patent and the Fitt patent to obtain a rubber latex glove comprising an amount of starch or modified starch. As previously discussed, independent claim 36 has been amended wherein the starch is incorporated into the liquid rubber latex before the article is formed. As discussed below in detail, none of the prior art referenced teaches or suggests this limitation.

The Stockum patent is directed to a method of making a medical glove comprising the steps of dipping a glove form 30 having a general contour of a human hand in a composition 34 of natural rubber latex, thus forming an outer layer 15 of glove 10 (col. 3, lines 31-42). Next, a second layer is deposited onto layer 15 of glove 10 by dipping glove 10 into a suspension 42 comprising elastomeric material 20 and particulate matter 22 (col. 3, lines 52-55). The particulate matter 22 used to form the suspension 42 is an epichlorohydrin cross-linked corn starch (col. 4, lines 21-23). The layers are cured and the glove is stripped

from the form 30 and reversed so that the skin-contacting layer can receive the second layer having particulate matter. In the Stockum patent, starch is present only in the second layer of the glove. Further, the glove 10 is already formed before the second layer having the starch is applied. In contrast, the starch in the present invention is mixed with the liquid rubber latex, after which the rubber latex article is formed from the mixture.

The Fitt patent is directed to a modified starch dusting powder used for lubricating medical apparatus and gloves used in medical, industrial and consumer applications (Abstract). The modified starch can be applied to the surface of gloves used in industrial or consumer applications in order to reduce the problems associated with prior art dusting powders, such as reducing any possible allergenic reaction from the protein in the starch (col. 2, lines 32-35 and col. 3, lines 3-5 and 48-50). The starch disclosed in the Fitt patent is incorporated in the rubber latex as a loose layer of powder and not into the liquid rubber latex as in the claimed invention.

There is no teaching, suggestion or motivation in either the Stockum patent or the Fitt patent, alone or in combination, that teach incorporating starch into the liquid rubber latex before the article is formed in order to reduce the allergen activity of the rubber latex. Further, the resultant combination of the method of the Stockum patent and the modified starch of the Fitt patent does not yield the claimed invention. In view of the amendment to independent claim 36 and the above remarks, reconsideration and withdrawal of the rejection of claims 36-41 are respectfully requested.

New Claims

New claim 52, which depends from independent claim 36, has been added to limit the amount of starch to maximally 10 wt.%. Support for new claim 52 can be found, for example, on page 7, lines 19-23 of the present specification. New claim 53, which depends from amended independent claim 42, has been added to include the incorporation of starch into the liquid rubber latex before forming the article. Support for new claim 53 can be found, for example, on page 8, lines 14-16 and page 14, lines 19-25 of the present specification.

CONCLUSION

In view of the foregoing amendments and remarks, withdrawal of the rejections and allowance of claims 36-46 and new claims 52 and 53 are respectfully requested.

Respectfully submitted,

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